

<b>INFORMATION DISCLOSURE STATEMENT</b>  <b>BY APPLICANT</b>				Docket: 4239-60771		App. Not yet assigned			
				Applicant: Berger and Del Castillo					
				Filed: Herewith		Art Unit: Not yet assigned			
RZ		WO 98/36087	20 Aug 1998	WIPO	—	—			
RZ		WO 99/64073	16 Dec 1999	WIPO	—	—			
<b>OTHER DOCUMENTS</b>									
RZ			Alkhatib <i>et al.</i> , "CC CKR5: A RANTES, MIP-1 $\alpha$ , MIP-1 $\beta$ Receptor as a Fusion Cofactor for Macrophage-Tropic HIV-1," <i>Science</i> 272:1955-1958, 28 June 1996						
			Allaway <i>et al.</i> , "Synergistic Inhibition of HIV-1 Envelope-Mediated Cell Fusion by CD4-Based Molecules in Combination with Antibodies to gp120 or gp41," <i>AIDS Research and Human Retroviruses</i> 9:581-587, 1993						
			Balter, "Revealing HIV's T Cell Passkey," <i>Science</i> 280:1833-1834, 19 June 1998						
			Bandres <i>et al.</i> , "Human Immunodeficiency Virus (HIV) Envelope Binds to CXCR4 Independently of CD4, and Binding Can Be Enhanced by Interaction with Soluble CD4 or by HIV Envelope Deglycosylation," <i>J. Virol.</i> 72:2500-2504, March 1998						
			Boots <i>et al.</i> , "Anti-Human Immunodeficiency Virus Type 1 Human Monoclonal Antibodies that Bind Discontinuous Epitopes in the Viral Glycoproteins Can Identify Mimotopes from Recombinant Phage Peptide Display Libraries," <i>AIDS Research and Human Retroviruses</i> 13:1549-1559, 1997						
			Broder and Berger, "Fusogenic selectivity of the envelope glycoprotein is a major determinant of human immunodeficiency virus type 1 tropism for CD4 <sup>+</sup> T-cell lines vs. primary macrophages," <i>Proc. Natl. Acad. Sci. USA</i> 92:9004-9008, August 1995						
			Broder <i>et al.</i> , "The Block to HIV-1 Envelope Glycoprotein-Mediated Membrane Fusion in Animal Cells Expressing Human CD4 Can Be Overcome by a Human Cell Component(s)," <i>Virology</i> 13:483-491, 1993						
RZ			Broder and Berger, "CD4 Molecules with a Diversity of Mutations Encompassing the CDR3 Region Efficiently Support Human Immunodeficiency Virus Type 1 Envelope Glycoprotein-Mediated Cell Fusion," <i>J. Virol.</i> 67:913-926, February 1993						

EXAMINER: <i>Robert Z...</i>	DATE: 11/20/03
*Examiner: Initial if considered, whether or not in conformance with MPEP 609; draw line through cite if not in conformance and not considered. Send copy.	

<b>INFORMATION DISCLOSURE STATEMENT</b>  <b>BY APPLICANT</b>				Docket: 4239-60771		App: Not yet assigned	
				Applicant: Berger and Del Castillo			
				Filed: Herewith		Art Unit: Not yet assigned	
<b>U.S. PATENT DOCUMENTS</b>							
Init.*		Number	Date	Name	Class	Sub	Filed
RZ		5,013,548	May 7, 1993	Haynes <i>et al.</i>	—	—	
		5,298,419	Mar. 29, 1994	Masuhō <i>et al.</i>	—	—	
		5,756,674	May 26, 1998	Katinger <i>et al.</i>	—	—	
		5,767,260	Jun. 16, 1998	Whitlow <i>et al.</i>	—	—	
		5,614,612	Mar. 25, 1997	Haigwood <i>et al.</i>	—	—	
		5,587,455	Dec. 24, 1996	Berger <i>et al.</i>	—	—	
		5,637,481	Jun. 10, 1997	Ledbetter <i>et al.</i>	—	—	
		5,643,756	Jul. 1, 1997	Kayman <i>et al.</i>	—	—	
		5,695,927	Dec. 9, 1997	Masuhō <i>et al.</i>	—	—	
		5,817,767	Oct. 6, 1998	Allaway <i>et al.</i>	—	—	
		5,843,454	Dec. 1, 1998	Devico <i>et al.</i>	—	—	
		5,843,882	Dec. 1, 1998	Boyd <i>et al.</i>	—	—	
		5,856,456	Jan. 5, 1999	Whitlow <i>et al.</i>	—	—	
		5,922,325	Jul. 13, 1999	Tilley <i>et al.</i>	—	—	
		6,107,019	Aug. 22, 2000	Allaway <i>et al.</i>	—	—	
<b>FOREIGN PATENT DOCUMENTS</b>							
		Number	Date	Country	Class	Sub	
RZ		WO 97/47318	18 Dec 1997	WIPO	—	—	

EXAMINER: <i>Rahul A. Z...</i>	DATE: 11/20/03
*Examiner: Initial if considered, whether or not in conformance with MPEP 609; draw line through cite if not in conformance and not considered. Send copy.	

<b>INFORMATION DISCLOSURE STATEMENT</b>  <b>BY APPLICANT</b>		Docket: 4239-60771	App. Not yet assigned
		Applicant: Berger and Del Castillo	
		Filed: Herewith	Art Unit: Not yet assigned
22			Byrn <i>et al.</i> , "Biological properties of a CD4 immunoadhesin," <i>Nature</i> 344:667-670, April 12, 1990
			Cao and Suresh, "Bispecific Antibodies as Novel Bioconjugates," <i>Bioconjugate Chem.</i> 9:635-645, 1998
			Capon <i>et al.</i> , "Designing CD4 immunoadhesins for AIDS therapy," <i>Nature</i> 337:525-531, 9 February 1989
			Cheong <i>et al.</i> , "Affinity enhancement of bispecific antibody against two different epitopes in the same antigen," <i>Biochem. Biophys. Res. Comm.</i> 173:795-800, December 31, 1990
			Cook and Wood, "Chemical synthesis of bispecific monoclonal antibodies: potential advantages in immunoassay systems," <i>J. Immunol. Meth.</i> 171:227-237, 1994
			D'Souza <i>et al.</i> , "Evaluation of Monoclonal Antibodies to Human Immunodeficiency Virus Type 1 Primary Isolates by Neutralization Assays: Performance Criteria for Selecting Candidate Antibodies for Clinical Trials," <i>J. Infect. Dis.</i> 175:1056-1062, 1997
			Feng <i>et al.</i> , "HIV-1 Entry Cofactor: Functional cDNA Cloning of a Seven-Transmembrane, G Protein-Coupled Receptor," <i>Science</i> 272:872-877, 10 May 1996
			Fu <i>et al.</i> , "Isolation and characterization of a monoclonal antibody that inhibits HIV-1 infection," <i>Microbes and Infection</i> 1:677-684, 1999
			Ho <i>et al.</i> , "Conformational Epitope on gp120 Important in CD4 Binding and Human Immunodeficiency Virus Type 1 Neutralization Identified by a Human Monoclonal Antibody," <i>J. Virol.</i> 65:489-493, January 1991
22			Idziorek and Klatzmann, "Construction of CD4-Based Chimeric Molecules by Chemical Cross-Linking," <i>AIDS Research. and Human Retroviruses</i> 7:529-536, 1991

EXAMINER:

*Robert Zern*

DATE

*11/20/03*

\*Examiner: Initial if considered, whether or not in conformance with MPEP 609; draw line through cite if not in conformance and not considered. Send copy.

531 Rec'd PCT 13 SEP 2001

Express Mail Label No. EL754021405US  
Date of Deposit: September 13, 2001

<b>INFORMATION DISCLOSURE STATEMENT</b>  <b>BY APPLICANT</b>			Docket: 4239-60771	App No. yet assigned <b>09/936702</b>
			Applicant: Berger and Del Castillo	
			Filed: Herewith	Art Unit: Not yet assigned
<p>12</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>			Kang <i>et al.</i> , "Identification of a New Neutralizing Epitope Conformationally Affected by the Attachment of CD4 to gp120," <i>J. Immunol.</i> 151:449-457, July 1, 1993	
			Kwong <i>et al.</i> , "Structure of an HIV gp120 envelope glycoprotein in complex with the CD4 receptor and a neutralizing human antibody," <i>Nature</i> 393:648-659, 18 June 1998	
			Mondor <i>et al.</i> , "Human Immunodeficiency Virus Type 1 Attachment to HeLa CD4 Cells Is CD4 Independent and gp120 Dependent and Requires Cell Surface Heparans," <i>J. Virol.</i> 72:3623-3634, May 1998	
			Neri <i>et al.</i> , "High-affinity Antigen Binding by Chelating Recombinant Antibodies (CRABs)," <i>J. Mol. Biol.</i> 246:367-373, 1995	
			Nussbaum <i>et al.</i> , "Fusogenic Mechanisms of Enveloped-Virus Glycoproteins Analyzed by a Novel Recombinant Vaccinia Virus-Based Assay Quantitating Cell Fusion-Dependent Reporter Gene Activation," <i>J. Virol.</i> 68:5411-5422, September 1994	
			Ridgway <i>et al.</i> , "'Knobs-into holes' engineering of antibody C <sub>H</sub> 3 domains for heavy chain heterodimerization," <i>Prot. Eng.</i> 9:617-621, 1996	
			Rizzuto <i>et al.</i> , "A Conserved HIV gp120 Glycoprotein Structure Involved in Chemokine Rector Binding," <i>Science</i> 280:1949-1953, 19 June 1998	
			Robert-Guroff <i>et al.</i> , "HTLV-III-neutralizing antibodies in patients with AIDS and AIDS-related complex," <i>Nature</i> 316:72-74, July 4, 1985	
			Root <i>et al.</i> , "Protein Design of an HIV-1 Entry Inhibitor," <i>Science</i> 291:884-888, 2 February 2001	
13			Satrentau and Moore, "Conformational Changes Induced in the Human Immunodeficiency Virus Envelope Glycoprotein by Soluble CD4 Binding," <i>J. Exp. Med</i> 174:407-415, August 1991	

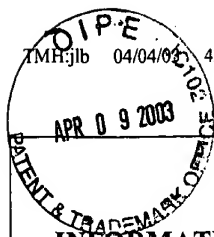
EXAMINER: <i>Robert Zimm</i>	DATE: <i>11/20/03</i>
*Examiner: Initial if considered, whether or not in conformance with MPEP 609; draw line through cite if not in conformance and not considered. Send copy.	

<b>INFORMATION DISCLOSURE STATEMENT</b>  <b>BY APPLICANT</b>			Docket: 4239-60771	Applicant: Berger and Del Castillo
			09/936702	
			Filed: Herewith	Art Unit: Not yet assigned
R2		✓	Sullivan <i>et al.</i> , "CD4-Induced Conformational Changes in the Human Immunodeficiency Virus Type 1 gp120 Glycoprotein: Consequences for Virus Entry and Neutralization," <i>J. Virol.</i> 72:4694-4703, June 1998	
R2			Thali <i>et al.</i> , "Characterization of Conserved Human Immunodeficiency Virus Type 1 gp120 Neutralization Epitopes Exposed upon gp120-CD4 Binding," <i>J. Virol.</i> 67:3978-3988, July 1993	
R2			Traunecker <i>et al.</i> , "Bispecific single chain molecules (Janusins) target cytotoxic lymphocytes on HIV infected cells," <i>EMBO J.</i> 10:3655-3659, December 1991	
R2			Traunecker <i>et al.</i> , "Janusin: new molecular design for bispecific reagents," <i>Int. J. Cancer Supplement</i> 7:51-52, 1992	
			Trkola <i>et al.</i> , "CD4-dependent, antibody-sensitive interactions between HIV-1 and its co-receptor CCR-5," <i>Nature</i> 384:184-187, 14 November 1996	
			Vodicka <i>et al.</i> , "Indicator Cell Lines for Detection of Primary Strains of Human and Simian Immunodeficiency Viruses," <i>Virology</i> 233:193-198, 1997	
			Wu <i>et al.</i> , "CD4-induced interaction of primary HIV-1 gp120 glycoproteins with the chemokine receptor CCR-5," <i>Nature</i> 384:179-183, 14 November 1996	
			Wyatt <i>et al.</i> , "Involvement of the V1/V2 Variable Loop Structure in the Exposure of Human Immunodeficiency Virus Type 1 gp120 Epitopes Induced by Receptor Binding," <i>J. Virol.</i> 69:5723-5733, September 1995	
			Wyatt <i>et al.</i> , "The antigenic structure of the HIV gp120 envelope glycoprotein," <i>Nature</i> 393:705-711, 18 June 1998	
R2			Wyatt and Sodroski, "The HIV-1 Envelope Glycoproteins: Fusogens, Antigens, and Immogens," <i>Science</i> 280:1884-1888, 19 June 1998	

EXAMINER:

DATE

\*Examiner: Initial if considered, whether or not in conformance with MPEP 609; draw line through cite if not in conformance and not considered. Send copy.



TMH:jlb 04/04/03 4239-60771 181018.doc

#6

**INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT**

Attorney Docket Number	4239-60771
Application Number	09/936,702
Filing Date	September 13, 2001
First Named Inventor	Berger
Art Unit	1645
Examiner Name	Not yet known

**U.S. PATENT DOCUMENTS**

Examiner's Initials*	Cite No. (optional)	Number	Date	Name
ll		US2003/0039663A1	Feb. 27, 2003	Devico <i>et al.</i>

**RECEIVED**

APR 11 2003

TECH CENTER 1600/2900

**FOREIGN PATENT DOCUMENTS**

Examiner's Initials*	Cite No. (optional)	Number	Date	Country

Examiner's Initials*	Cite No. (optional)	OTHER DOCUMENTS
ll		Hanke and McMichael, "Design and construction of an experimental HIV-1 vaccine for a year-2000 clinical trial in Kenya," <i>Nature Med.</i> 6(9):951-955, September 2000
ll		McMichael and Hanke, "Is an HIV vaccine possible? Novel vaccines that induce cellular immunity can protect macaques from infection with simian immunodeficiency virus (643-650)," <i>Nature Med.</i> 5(6):612-614, June 1999

EXAMINER  
SIGNATURE:DATE  
CONSIDERED:

11/20/03

\* Examiner: Initial if reference considered, whether or not in conformance with MPEP 609. Draw line through cite if not in conformance and not considered. Include copy of this form with next communication to applicant.